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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,396	04/26/2001	Stefan Dutzmann	2400.2440002/RWE/L-Z	4187

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EXAMINER	
CHOI, FRANK I	

ART UNIT	PAPER NUMBER
1616	

MAIL DATE	DELIVERY MODE
06/08/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/843,396	DUTZMANN ET AL.	
	Examiner	Art Unit	
	FRANK I. CHOI	1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 July 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *13-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *13-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 09/402,866.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 17, 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 17 and 18 claim a ratio range of 1:1 to 1:3, however, claim 16 on which they are dependent claims a ratio range of 1:1 to 3:1. As such, the ratios of 1:3 to but not including 1:1 are outside the scope of the ratio range of 1:1 to 3:1 and lack antecedent basis.

Claim Rejections - 35 USC §103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 13-18 are rejected under 35 U.S.C. 103(a) as being obvious over WO 96/16048 and the acknowledged prior art.

The invention is directed to a fungicidal composition comprising synergistically effective amounts of prothioconazole and tebuconazole in a specified ratio range and application to the fungi or fungi's habitat.

WO 96/16048 discloses the combination of prothioconaozole with other fungicides, including propineb, dimethomorph and fosetyl-aluminum, to widen the spectrum of action, to

prevent build of resistance and that the activity of the mixture in many cases exhibits synergistic activity and that the formulations are prepared in a known manner, for example by mixing the active compounds with surfactants and extenders, and that application concentrations of the active compounds depend on the nature and occurrence of the microorganisms to be controlled and on the composition of the material to be protected and the optimum amount to be employed can be determined by a series of tests(see entire reference, especially, Pg. 42, lines 11-15, Pg. 43, lines 15-30, Pg. 44, Pg. 47).

The acknowledged prior art is cited for the same reasons as above and are incorporated herein to avoid repetition.

WO 96/16048 discloses that prothioconazole can be combined with other fungicides and the combination can be synergistic. The difference between WO 96/16048 and the claimed invention is that WO 96/16048 does not expressly disclose the combination of prothioconaozole with tebuconazole. However, the acknowledged prior art amply suggests the same as it is known that that the prothioconazole and tebuconazole used singly are effective fungicides. As such, it would have been well within the skill of and one of ordinary skill in the art would have been motivated to combine prothioconazole with tebuconazole with the expectation that the combination would be more effective than each alone.

"It is prima facie obvious to combine two compositions each of which is taught by theprior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." *In re Kerkhoven*, 850, 205 USPQ 1069, 1072 (CCPA 1980) (citations omitted) (Claims to a process of preparing a spray-dried detergent by mixing together two conventional spray-dried detergents were held to be prima facie obvious.). See also *In re*

Crockett, 126 USPQ 186 (CCPA 1960) (Claims directed to a method and material for treating cast iron using a mixture comprising calcium carbide and magnesium oxide were held unpatentable over prior art disclosures that the aforementioned components individually promote the formation of a nodular structure in cast iron.); and *Ex parte Quadranti*, 25 USPQ2d 1071 (Bd. Pat. App. & Inter. 1992) (mixture of two known herbicides held prima facie obvious).

The Examiner has duly considered Applicant's arguments but deems them unpersuasive,

The Applicant uses the Colby equation calculations as evidence of synergy. However, the Colby equation is not a reliable measurement of synergy. See Rummens, page 5 (Colby equation can create an antagonism where none is present). Further, the Specification does not appear to show trend in the data that would allow one of ordinary skill in the art to extend the probative value thereof. See *In re Clemens*, 622 F.2d 1029, 1036, 206 USPQ 289, 296 (CCPA 1980). Except for Example 1, none of the other examples provide efficacy data for the amounts used in the mixture applied in the same amount individually for both prothioconazole and tebuconazole. As such, it cannot be determined from those examples whether the amounts used in the mixture were synergistic. In Example 5 (treatment of Erysiphe infection on wheat), the efficacies of prothioconazole at 25, 12.5 and 6.25 g/ha were 75, 50 and 25%, respectively and the efficacy of tebuconazole at 25 g/ha was 88%. Since the maximum efficacy that a combination of said agents at the amounts indicated could not exceed %100, the data provided in fact provides evidence that the combination of prothioconazole and tebuconazole at the ratio of 1:1 to 1:3 is not synergistic. With respect to example 1 (pretreatment of cucumber prior to inoculation with Sphaerotheca), at an application rate of 2.5 g/ha for each agent, the actual efficacy for the mixture was 85% with the efficacies of the agents applied individually adding up to 71%. Since there is no indication as to the number of trials and/or number of plants treated, or statistical

analysis of the values (the Examiner assumes that the values are averages), it does not appear that the value of 85% is significantly greater than 71%. As such, the data provided by the Applicant is not sufficient to show synergy at the ratio of 1:1 to 1:3 much less the entire range.

The data in the Specification, in addition to the above, shows that efficacy data can vary depending on a number of factors, including amount applied, fungi, treatment or pretreatment and/or habitat treated. For example, the efficacy at 25 g/ha of prothioconazole and tebuconazole varied from 75% and 88%, respectively in treatment of Erysiphe infection on wheat to 19% and 27%, respectively in treatment of Rhizoctonia solani infection on cotton seeds (See Example 5 and Example 11). As such, in view of the above, as the claims encompass treatment of any fungi and/or pre-treatment of any fungi's environment, even if the data was sufficient to show unexpected activity, the evidence is not commensurate in scope with the claimed invention.

Therefore, the claimed invention, as a whole, would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, because every element of the invention has been collectively taught by the combined teachings of the cited reference and the acknowledged prior art.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

A facsimile center has been established in Technology Center 1600. The hours of operation are Monday through Friday, 8:45 AM to 4:45 PM. The telecopier number for accessing the facsimile machine is 571-273-8300.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Choi whose telephone number is (571)272-0610. The Examiner maintains a flexible schedule, however, the Examiner may generally be reached Monday, Tuesday, Wednesday and Thursday, 6:00 am – 4:30 pm (EST).

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Johann R. Richter, can be reached at (571)272-0646. Additionally, Technology Center 1600's Receptionist and Customer Service can be reached at (571) 272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frank Choi
Patent Examiner
Technology Center 1600
June 9, 2010

/Johann R. Richter/
Supervisory Patent Examiner, Art Unit 1616